

Notice of Allowability

Application No.

10/567,967

Applicant(s)

SUGAWARA ET AL.

Examiner

Fred M. Teskin

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to REPLY OF NOVEMBER 19, 2007.
2. ☒ The allowed claim(s) is/are 9, 11, 13-16, 18 and 20-22.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 20070926
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Reasons for Allowance

The following is an examiner's statement of reasons for allowance:

Claims 9, 11, 13-16, 18 and 20-22 are allowable over the closest prior art to Caster et al, Endo and Benedikt et al (cited herewith).

Endo discloses monomer compositions comprising a metathesis polymerization catalyst, a solution of 80/20 mol % dicyclopentadiene/5-styryl norbornene and dichlorodiphenylmethane, which is described therein as a compound capable of generating a radical by a redox reaction (page 4, ll. 31-40). The possible inclusion of a chain transfer agent is not contemplated. In fact, Endo expressly states that the vinyl monomer used in its invention "must not be active as chain transfer agent during the metathesis polymerization reaction" (*Id.*, ll. 47-49). Caster et al disclose a polymerizable composition comprising a ring-opening metathesis catalyst and monomers capable of undergoing a metathesis reaction, particularly norbornene monomers such as ethylidene norbornene and 5-vinyl-norbornene. Caster et al further provide for inclusion of an optional heat-reactive peroxide compound (col. 15, ll. 34-40), but nowhere teach or suggest the desirability of utilizing a chain transfer agent together with the peroxide compound and 5-vinyl-norbornene monomer.

Benedikt et al disclose polycycloolefin solutions prepared from dicyclopentadiene and vinyl norbornene (e.g., 84/16 wt %, per Example 10) by ring-opening metathesis polymerization in the presence of 1-hexene as molecular weight regulator. A curing agent is then added to the polymer solution to form a prepreg, which is subject to subsequent lamination and curing conditions (Example 10, Steps 2 and 3). However,

Benedikt et al positively require that the curing agent be added to the polycycloolefin solution *after* the polycycloolefin has been worked-up from its synthesis step (col. 6, ll. 26-30). As such, the prior art fails to teach or fairly suggest the polymerizable composition of the present invention, wherein the defined cycloolefin mixture and a metathesis polymerization catalyst are combined with both a radical generating agent and a chain transfer agent.

The terminal disclaimer filed on November 14, 2007, disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of U.S. Patent No. 7,273,915 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner F. M. Teskin whose telephone number is (571) 272-1116. The examiner can normally be reached on Monday through Thursday from 7:00 AM - 4:30 PM, and can also be reached on alternate Fridays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached on (571) 272-1114. The appropriate fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


FRED TESKIN
PRIMARY EXAMINER
1796

FMTeskin/01-22-08